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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER	
LE,L	
ART UNIT	PAPER NUMBER
2684	

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Please find below and/or attached an Office communication concerning this application or proceeding.

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PTO-90C (Rev.11/00)

1- File Copy

Advisory Action

Application No.	Applicant(s)
09/185,070	Melrzon et al
Examiner	**Art Unit**
Lana Le	2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED *Apr 27, 2001* FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid the abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

THE PERIOD FOR REPLY [check only a) or b)]

a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.

b) ☒ In view of the early submission of the proposed reply (within two months as set forth in MPEP § 706.07 (f)), the period for reply expires on the mailing date of this Advisory Action, OR continues to run from the mailing date of the final rejection, whichever is later. In no event, however, will the statutory period for the reply expire later than SIX MONTHS from the mailing date of the final rejection.

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will be entered upon the timely submission of a Notice of Appeal and Appeal Brief with requisite fees.
3. ☐ The proposed amendment(s) will not be entered because:
   (a) ☐ they raise new issues that would require further consideration and/or search. (See NOTE below);
   (b) ☐ they raise the issue of new matter. (See NOTE below);
   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ they present additional claims without cancelling a corresponding number of finally rejected claims.

   NOTE: _____
4. ☐ Applicant's reply has overcome the following rejection(s): _____
5. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in separate, timely filed amendment cancelling the non-allowable claim(s).
6. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because:
   The reference cited in the final rejection, Dent et al (US 5,991,635) can still read on the claims.
7. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
8. ☒ For purposes of Appeal, the status of the claim(s) is as follows (see attached written explanation, if any):
   Claim(s) allowed: _____
   Claim(s) objected to: _____
   Claim(s) rejected: *1-19*
9. ☐ The proposed drawing correction filed on _____ a) ☐ has b) ☐ has not been approved by the Examiner.
10. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ .
11. ☒ Other: *see the attached paper.*

RESPONSE TO RECONSIDERATION

Response to Arguments

1. Applicant's arguments with respect to claims 1-6, 8-12, 16 have been considered but are not persuasive in view of the previous reference Dent et al (US 5,991,635), the "less than full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the user VSAT interface" can occur when the mobile unit first enters into a lower-powered sleep mode that reduce power consumption and it doesn't matter if the power is further reduced or not, the fact that the power is reduced and then later wakes up and increase the power again to receive incoming signals or "provides full electrical power supply to either of the amplifiers in the presence of a communication session" reads onto what's claimed (col 6, lines 29-39, col 14, lines 64-67). Claims 17-19 have been considered but are not persuasive in view of Dent et al or Walls in which the front end inherently in Dent et al's circuits which includes the low noise amplifier is turned off, or that Walls' LNA is turned down in between the signalled pulses. Therefore, the rejections stands as set forth in the previous office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6, 8-12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soleimani et al (US 5,678, 228) in view of Dent et al (US5,991,635).

Regarding claim 1, Soleimani et al discloses a VSAT terminal comprising an antenna 12 (see Fig. 2 and hereafter); a microwave power amplifier 28, a microwave low noise amplifier in the receiver chain 80; a transmitter 20 coupled via the power amplifier to the antenna; a receiver 80 coupled via the microwave low noise amplifier to the antenna; a user VSAT interface 16; and a controller 45 in communication with the user VSAT interface and in electrical connection with the power amplifier and the low noise amplifier for supplying power thereto, a controller operative to provide a full electrical power supply to either of the amplifiers in the presence of a communication period (col 4, lines 25-35 and col 6, lines 29-39). Soleimani didn't disclose the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the user VSAT interface. However, Dent et al discloses the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the user VSAT interface (col

4, lines 18-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the teaching of Dent et al to Soleimani et al in order to be able to save power when a period of inactivity is detected.

Regarding claim 2, it is rejected as set forth in claim 1, wherein Soleimani et al further presents that the controller is controlled to react when the user VSAT interface send out a signal by providing electrical power to the power amplifier (col 4, lines 15-20).

Regarding claim 3, it is rejected as set forth in claim 1, wherein Soleimani et al further discloses that the controller is controlled to react when the user VSAT interface send out a signal for providing electrical power to the low noise amplifier (col 6, lines 55-67).

Regarding claim 4, it is rejected as set forth in claim 1, wherein Soleimani et al further discloses that the controller dispenses a less than full power supply to the low noise amplifier and the microwave power amplifier when there is no communication signal (col 4, lines 63-67, col 5, lines 1-5) and wherein the controller is controlled to react when the user VSAT interface sends out a signal by providing a full power supply to the low noise amplifier and the power amplifier (col 4, lines 60-63, col 4, lines 20-25).

Regarding claim 7, Soleimani et al further discloses that the controller is functional to turn down the electrical power supply to either of the amplifiers after a predetermined period of inactivity by the user VSAT interface (col 4, lines 59-67).

Regarding claim 8, Soleimani et al further discloses that the controller is functional to turn down the electrical power supply to either of the amplifiers after a predetermined period of inactivity of the microwave low noise amplifier (col 5, lines 10-13).

Regarding claim 9, Soleimani et al further discloses that the controller operates in accordance with a predetermined power control scheme for providing electrical power to the microwave power amplifier (col 4, lines 42-53).

Regarding claim 10, Soleimani et al also reveals a VSAT telecommunication network 10 (Fig 1) comprising at least one satellite 4, and a plurality of VSAT terminals 6 talking with the communication satellite, wherein at least one of the VSAT terminals comprises an antenna 12 (see Fig. 2 and hereafter); a microwave power amplifier 28, a microwave low noise amplifier in the receiver chain 80; a transmitter 20 coupled via the power amplifier to the antenna; a receiver 80 coupled via the microwave low noise amplifier to the antenna; a user VSAT interface 16; and a controller 45 in communication with the user VSAT interface and in electrical connection with the power amplifier and the low noise amplifier for supplying power thereto, the controller being and functional to dispense a full electrical power supply to either of the amplifiers in the presence of a communication period (col 4, lines 25-35). Soleimani didn't disclose the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the user VSAT interface. However, Dent et al discloses the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the user VSAT interface (col 4, lines 18-

39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the teaching of Dent et al to Soleimani et al in order to be able to save power when a period of inactivity is detected.

Regarding claim 11, Soleimani et al presents a method for managing power consumption in a VSAT terminal having an antenna 12 (see Fig. 2 and hereafter); a microwave power amplifier 28, a microwave low noise amplifier in the receiver chain 80; a transmitter 20 coupled via the power amplifier to the antenna; a receiver 80 coupled via the microwave low noise amplifier to the antenna; a user VSAT interface 16; and a controller 45 in communication with the user VSAT interface, the power amplifier, and the low noise amplifier, the method comprising of dispensing a full electrical power supply to either of the amplifiers in the presence of a communication period (col 4, lines 25-35). Soleimani didn't disclose the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the user VSAT interface. However, Dent et al discloses the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the user VSAT interface (col 4, lines 18-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the teaching of Dent et al to Soleimani et al in order to be able to save power when a period of inactivity is detected.

Regarding claim 12, Soleimani et al further discloses that the method according to claim 11 wherein the step of dispensing a less than full electrical power supply comprises dispensing a

less than full power supply to the microwave low noise amplifier and the microwave power amplifier when there is no communication present (col 4, lines 63-67 and col 5, lines 1-5) and wherein the dispensing a full electrical power supply step comprises providing a full electrical power supply to the microwave low noise amplifier and the microwave power amplifier in response to operation of the user VSAT interface (col 4, lines 20-25 and col 4, lines 60-63).

Regarding claim 5, Soleimani et al teaches a VSAT terminal according to claim 1, wherein Soleimani et al also discloses that the controller is functional to the user VSAT interface's operation by dispensing max electrical power supply to the low noise amplifier and the power amplifier (col 3, lines 57-col 4 line 4). However, Soleimani et al didn't specifically teach that in the absence of a communication period or while in standby mode, the receiver is still turned on, wherein the controller provides a less-than full power supply to the microwave power amplifier when there is no communication. Dent et al stated that it is well known in the art that only the receiver is operating when the transmitter is off during the time between conversations or between any interaction of the user interface or the receiver, the receiver is consuming power (col 3, lines 12-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the teaching of Dent et al to Soleimani et al in order to particularly save power on one unit while the other is left on to wait for or receive periodic incoming signals.

Regarding claim 6, Soleimani et al discloses a VSAT terminal according to claim 1, wherein the controller is responsive to receipt of an incoming transmission via the microwave low noise amplifier for dispensing a maximum electrical power supply to the low noise amplifier and

the power amplifier, since Soleimani stated that the receiver chain comprising the low noise amplifier (col 6, lines 57-60) receives communication signals at regular predefined intervals in synchronization with the transmission from the central hub station (col 5, lines 25- 30). However, Soleimani et al didn't specifically teach that in the absence of a communication period or while in standby mode, the receiver is still turned on, wherein the controller supplies a low power supply to the microwave power amplifier and a full power supply to the microwave low noise amplifier in the absense of a communication period. Dent et al stated that it is well known in the art that only the receiver is operating when the transmitter is off during the time between conversations or any interaction of the transmitter or receiver, the receiver is consuming power (col 3, lines 12-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the teaching of Dent et al to Soleimani et al in order to particularly save power on one unit while the other is left on to wait for or receive periodic incoming signals.

3. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soleimani in view of Walls (US 5,898,401).

Regarding claim 17, Soleimani et al discloses a VSAT terminal comprising an antenna 12 (see Fig. 2 and hereafter); a microwave power amplifier 28, a microwave low noise amplifier in the receiver chain 80; a transmitter 20 coupled via the power amplifier to the antenna; a receiver 80 coupled via the microwave low noise amplifier to the antenna; a user VSAT interface 16; and a controller 45 in communication with the user VSAT interface and in electrical connection with the microwave power amplifier and the microwave low noise amplifier for supplying power thereto,

the controller being operative to provide a full electrical power supply to either of the amplifiers in the presence of a communication session (col 4, lines 25-35). Soleimani didn't disclose the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the microwave low noise amplifier. However, Walls discloses the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the low noise amplifier (col 5, lines 17-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the teaching of Dent et al to Soleimani et al in order to be able to save power either to the whole terminal or a component of the receiver chain as in the LNA here when there's no activity.

Regarding claim 18, Soleimani et al also reveals a VSAT telecommunication network 10 (Fig 1) comprising at least one satellite 4, and a plurality of VSAT terminals 6 talking with the communication satellite, wherein at least one of the VSAT terminals comprises an antenna 12 (see Fig. 2 and hereafter); a microwave power amplifier 28, a microwave low noise amplifier in the receiver chain 80; a transmitter 20 coupled via the power amplifier to the antenna; a receiver 80 coupled via the microwave low noise amplifier to the antenna; a user VSAT interface 16; and a controller 45 in communication with the user VSAT interface and in electrical connection with the microwave power amplifier and the microwave low noise amplifier for supplying power thereto, the controller being and functional to dispense a full electrical power supply to either of the amplifiers in the presence of a communication period (col 4, lines 25-35). Soleimani didn't

disclose the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the microwave low noise amplifier. However, Walls discloses the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of low noise amplifier (col 5, lines 17-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the teaching of Dent et al to Soleimani et al in order to save power either to the whole terminal or a component of the receiver chain as in the LNA here when there's no activity.

Regarding claim 19, Soleimani et al presents a method for managing power consumption in a VSAT terminal having an antenna 12 (see Fig. 2 and hereafter); a microwave power amplifier 28, a microwave low noise amplifier in the receiver chain 80; a transmitter 20 coupled via the microwave power amplifier to the antenna; a receiver 80 coupled via the microwave low noise amplifier to the antenna; a user VSAT interface 16; and a controller 45 in communication with the user VSAT interface, the microwave power amplifier, and the low noise amplifier, the method comprising of dispensing a full electrical power supply to either of the amplifiers in the presence of a communication period (col 4, lines 25-35). Soleimani didn't disclose the controller being functional to provide a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the microwave low noise amplifier. However, Walls discloses the controller being functional to dispense a less-than-full electrical power supply to either of the amplifiers after a predetermined period of inactivity of the low noise amplifier (col 5,

lines 17-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the teaching of Dent et al to Soleimani et al in order to save power either to the whole terminal or a component of the receiver chain as in the LNA here when there's no activity.

Conclusion

4. Any response to this action should be mailed to:

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or faxed to:

(703) 305-9501 (for formal communications intended for entry)

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(703) 305-9508 (for informal or draft communications, please label

"PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to the Crystal Park II, 2021 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or communications from the examiner should be directed to Lana Le whose telephone number is (703) 308-5836 and to the supervisory patent examiner Daniel Hunter whose telephone number is (703) 308-6732.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

With Regards,

Lana Le

May 14, 2001

DANIEL HUNTER
SUPERVISORY PATENT EXAMINER
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